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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,491	04/20/2004	Hei-Tong Ching	4444-0143PUS1	3297
2292 7590 05/18/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER AKANBI, ISIAKA O	
			ART UNIT 2886	PAPER NUMBER
			NOTIFICATION DATE 05/18/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/827,491

Applicant(s)

CHING ET AL.

Examiner

Isiaka O. Akanbi

Art Unit

2886

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-23 and 25-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-23 and 25-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 February 2007 has been entered. Claims 30-33 have been added.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 9-11, 14-18, 20-23, 25 and 27-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Droge et al. (5,291,028).

Regarding claims 1 and 16, Droge discloses optical measuring apparatus shown in figs. 1-4a that is a reflection apparatus, comprising:

a light source (3) and guiding module (7) having a light source module and a light-guiding apparatus, said light source module (3) providing a spontaneous emission light, said light-guiding apparatus (7) reflecting said spontaneous emission light to a linear incident light (fig. 3C)(col. 1, line 15-20), and said linear incident light irradiating a detection area (11) and a receiving module/image-sensing module (10/4) for imaging and processing said linear incident light passed through or reflected by said detection area (11)(fig. 3A-3C), wherein said light-guiding apparatus (7) has first open end for receiving the spontaneous emission light and has a second open end (9/17) for outputting the linear incident light, said first opening end being larger than said second open end (figs. 1 and 2B).

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As to claim 2, according to claim 1, Droge discloses said light-guiding apparatus (7) is configured between said light source (3) module and said detection area (4)(figs. 1-2B).

As to claims 3 and 18, Droge further shows in fig. 2B that said light source module comprising LED light array (3).

As to claims 4 and 21, Droge discloses the limitation wherein the geometric type of the light-guiding apparatus (7) is wedge-shaped light-guiding apparatus and a straight-line-type wedge-shaped light-guiding apparatus (figs. 1, 3B-3C).

As to claims 5 and 22, Droge discloses the limitation wherein the filled material inside said light-guiding apparatus is glass, acrylics, and polycarbonate (col. 5, line 66-67).

As to claims 6, 23 and 28-29 Droge discloses the limitation wherein the exterior enclosure of light-guiding apparatus (7) is a combination of a plurality of reflection elements (i.e. plexiglass, stainless steel sheets) that is capable of reflecting and transmitting spontaneous emission light (col. 5, line 66-67).

As to claims 9 and 20, Droge also discloses the limitation wherein said optical measurement apparatus comprises a light-mending lens (10/15), configured between said light source module (3) and said detection area (4), and the material of said light-mending lens is chosen from the group consisting of glass, acrylics, and polycarbonate (col. 5, line 65-67).

As to claim 10, Droge discloses further the limitation wherein said receiving module comprises an image module (15) and an image-sensing module (4), and said image module is configured between said detection areas and said image-sensing module (fig. 1).

As to claims 11 and 25, Droge further discloses the limitation wherein said image module 910/15) comprises a focusing lens (col. 3, line 64-65)(col. 6, line 10-12)(col. 8, line 34-42).

As to claims 14 and 27, Droge discloses image-sensing module (4) that comprising a area sensor and a linear sensor (col. 1, line 8-20).

As to claims 15 and 17, Droge further discloses a platform for (i.e. scanner) supporting and transporting a test sample to move in one-dimension direction (i.e. line)(col. 1, line 8-20 and line 50-col. 2, line 4).

As to claims 30 and 31, Droge discloses the limitation wherein said light-guiding apparatus (7) is wedge-shaped (col. 5, line 59-60)

As to claims 32 and 33, Droge discloses the limitation wherein said linear incident light out of said light-guiding apparatus is continuous (col. 3, line 63-col. 4, line 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8, 13, 19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Droge et al. (5,291,028) in view of Prober et al. (5,306,618).

As to claims 8 and 19, Droge fails to disclose an excitation filter, configured between said light source module and said detection area.

However, the use of filter (i.e. an excitation filter) that is configured between said light source module and said detection area is known, as evidenced by Prober (32) (fig. 1)(col. 11, line 12-14).

Therefore it would have been at least obvious to one having ordinary skill in the art at the time of the invention was made to modify Droge by incorporating an excitation filter configured between the light source module and detection area for the purpose of altering or isolating a segment of the spectrum, as per the teachings of Prober.

As to claims 13 and 26, Droge is silent regarding image-sensing module (4)(fig. 6B) comprising a filter lens and a dichroic mirror.

Prober teaches of image-sensing module (38) comprises a filter lens and a dichroic mirror (col. 12, line 13-20).

Therefore it would have been obvious to one having ordinary skill in the art at the time of invention to modify Droge by using spectral filters/filter lens for the purpose of separating light spatially by wavelength and use the dichroic beamsplitter/mirror for the purpose of detecting the differences in print contrast, as per the teachings of Prober.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Droge et al. (5,900,131) in view of Simpson et al. (6,017,434)

As to claim 12, Droge fails to disclose the image module comprising a micro diffraction grating configured between said detection area and said focusing lens, and the image module comprises a projection lens between said focusing lens and said image-sensing module.

However, since Droge does not limit the image module to be used and the use of image module and image module comprising a micro diffraction grating to separates light into rays of different wavelength, which diverge along the direction of spectral axis, a projection/collection lens (222)(fig. 2A) collimates the scattered light into parallel rays (col.10, line 43-55) is known, as evidenced by Simpson, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify Droge by incorporating a micro diffraction grating between the detection area and the focusing lens and a projection lens between the focusing lens and the image onto the sample/detector for the purpose of separating the light into rays of different wavelength, as per the teachings of Simpson.

Additional Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references listed in the attached form PTO-892 teach of other prior art optical measuring apparatus that may anticipate or obviate the claims of the applicant's invention.

The use of cylindrical lenses/mirror to shape spontaneous emission light (LED) to a continuous linear incident light is well know as evident by Roengaus et al. (7,072,034 B2)(col. 13, line 14-17).

Response to Arguments

In response to Applicant's arguments see pages 8-11, filed on 27 February 2007, with respect to the rejection(s) of claim(s) 1-3, 5, 6, 8-20, 22-23 and 25-29 under 35 U.S.C. 102(e)

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and 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of claim amendment.

Conclusion

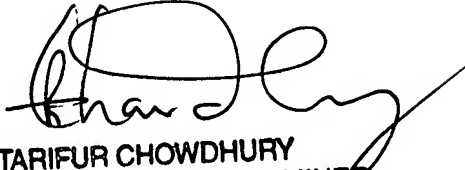
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isiaka Akanbi whose telephone number is (571) 272-8658. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur R. Chowdhury can be reached on (571) 272-2287. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Isiaka Akanbi

May 11, 2007


TARIFUR CHOWDHURY
SUPERVISORY PATENT EXAMINER